# Master Water Supply Plan Update

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Minneapolis IGR Committee

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# Sustainable water use approaches

Groundwater

Enhanced Recharge

Surface Water

Stormwater

Reclaimed Wastewater

Conservation

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# Council role in water supply planning

*2005 MN Statutes, Sec. 473.1565 - "Carry out planning activities addressing the water supply needs of the metropolitan area"*

- Develop and maintain technical information
- **Develop and periodically update a metropolitan area master water supply plan**
- Clarify roles and responsibilities of local, regional, and state government in metropolitan area water supply
- Streamline and consolidate metropolitan area water supply decision-making and approval processes
- Recommend funding for metropolitan area water supply planning activities and capital investments

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# Water Supply Planning Unit

## Tools

- Metro Model 2
- Conservation Toolbox
- Stormwater Reuse Guide
- Groundwater Recharge Map

## Collaboration

- State: Natural resources, Health
- MAWSAC
- U of M, US Geological Survey, MN Geological Survey
- Municipalities and Utilities
- Consultants

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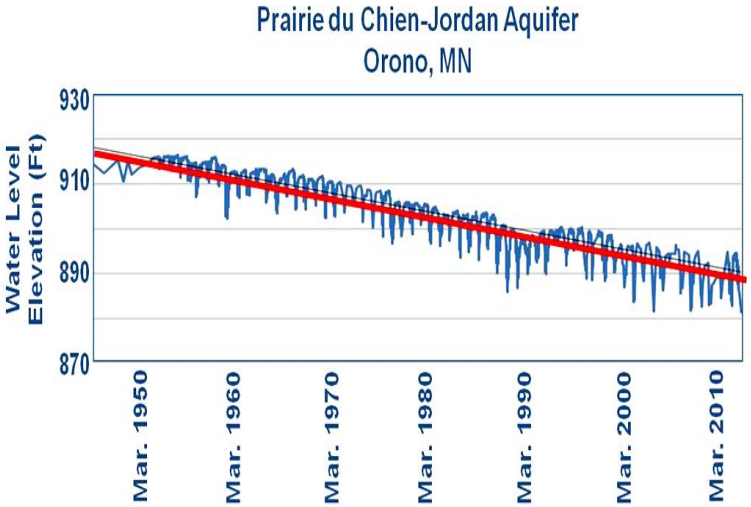
# We need to change

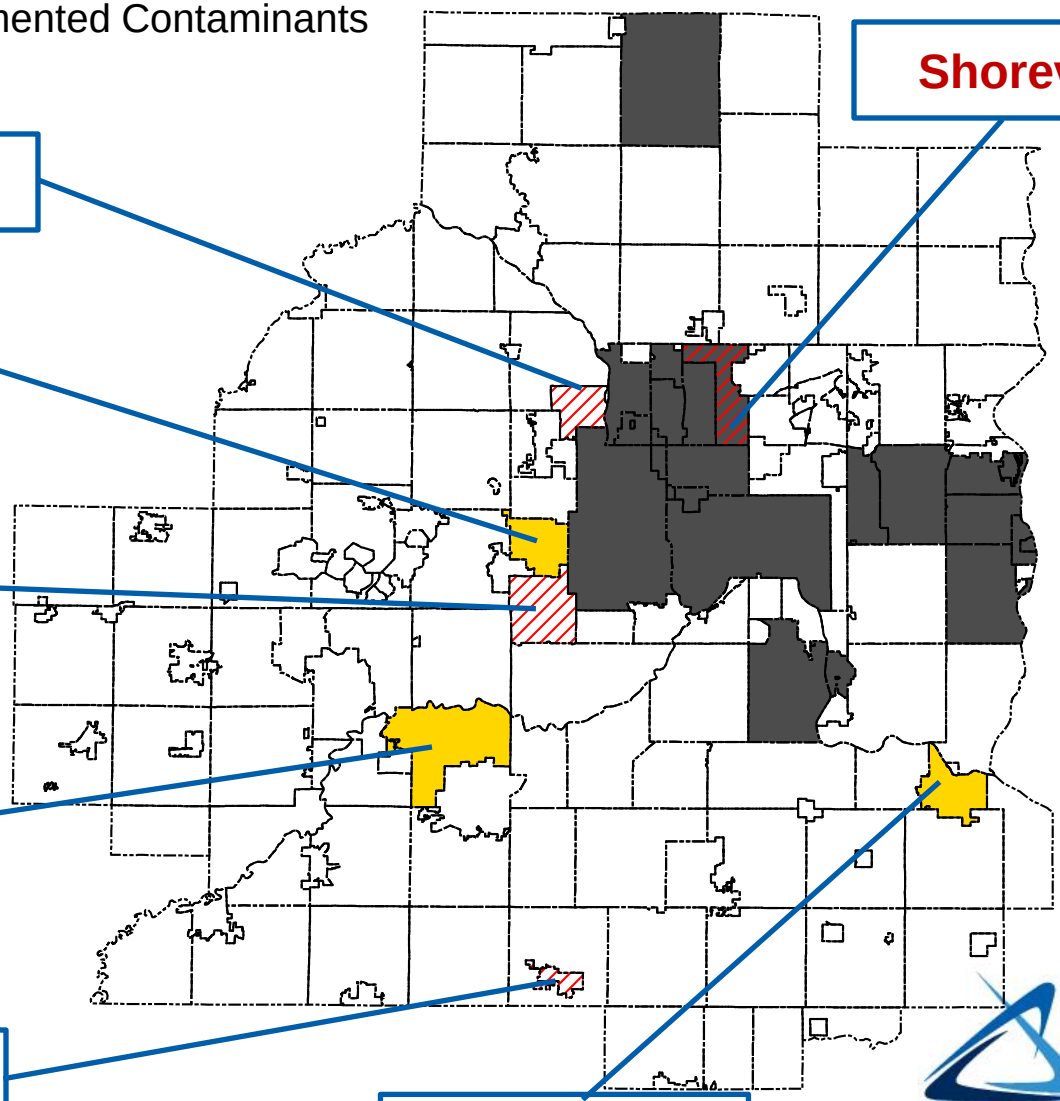
- Current approach to water supply management and development is unsustainable
- Aquifer levels are declining
- Lakes, streams and wetlands are impacted




Example of community dealing with contamination issues in the past 10 years

Example of community planning new treatment plant to address water supply issues

Communities with documented Contaminants

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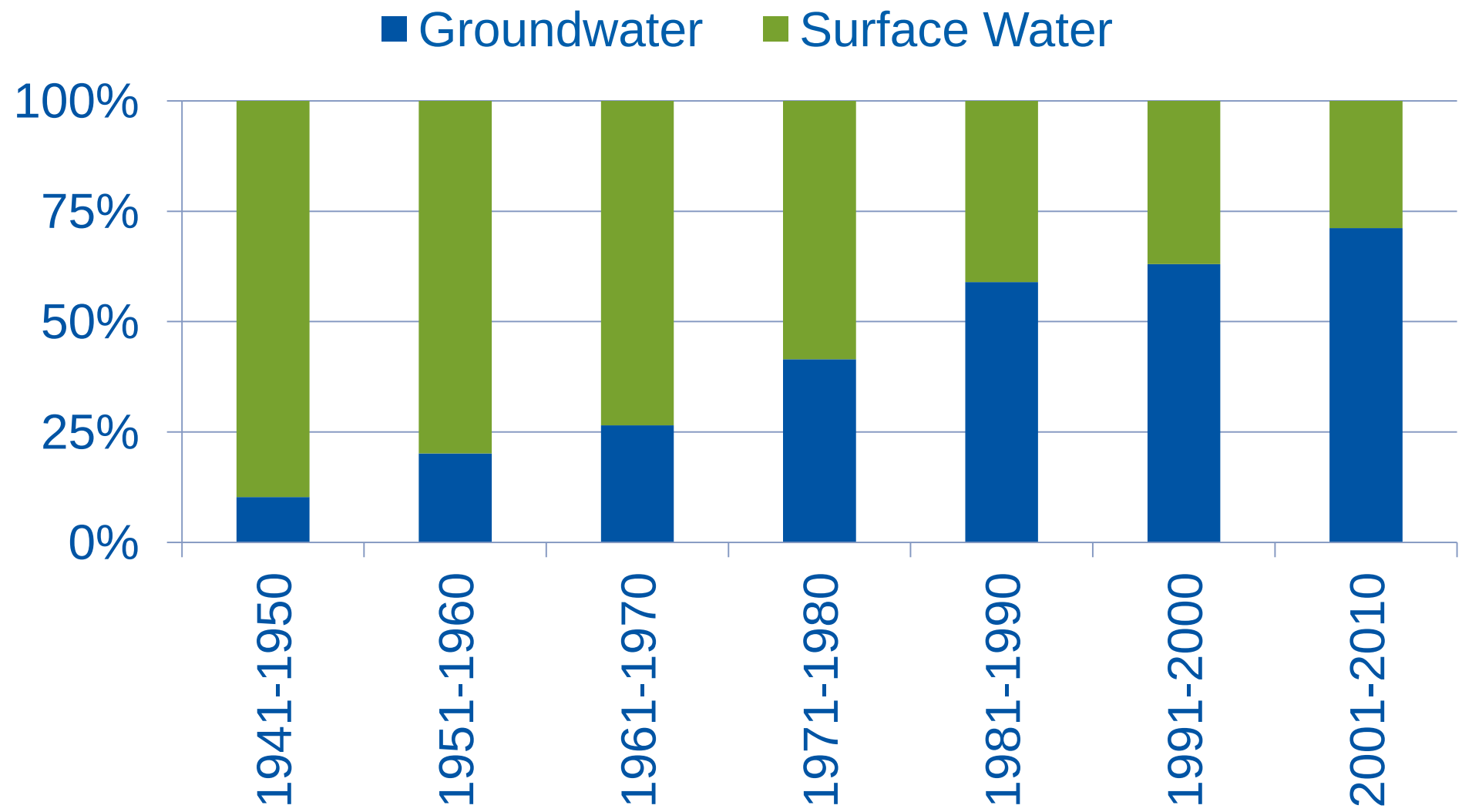
# Planned upgrades over the next 5 years

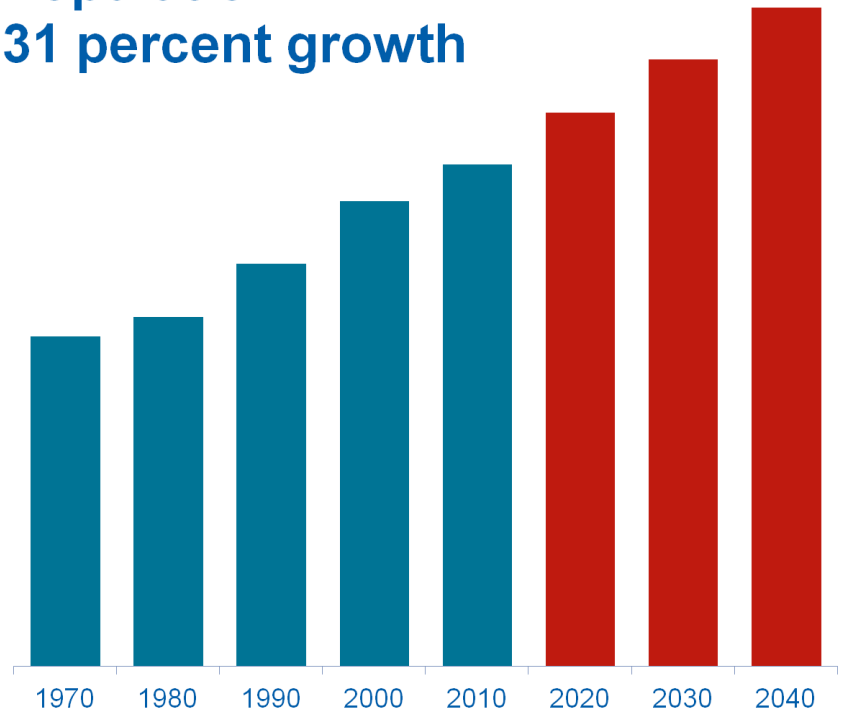
| City | Planned Upgrade | Cost |
|---|---|---|
| **Brooklyn Center** | New plant – manganese treatment | $18M |
| **Shoreview** | New plant – iron/manganese treatment | $10M |
| **Edina** | New plant, wells | $7M |
| **Elko New Market** | New plant, radium treatment | $8M |
| **New Germany** | New plant, radium treatment | $2M |
| **Lake Elmo** | New well, trunk main | $10M |
| **Empire Township** | New plant – radium, iron/manganese treatment | $8M |
| **Chanhassen** | New plant – iron/manganese treatment | $10-20M |
| **Minnetrista** | New plant – iron/manganese treatment | $5-20M |
| **TOTAL** | **9 communities** | **$100M** |

# Municipal water use in 7-county Twin Cities metropolitan area

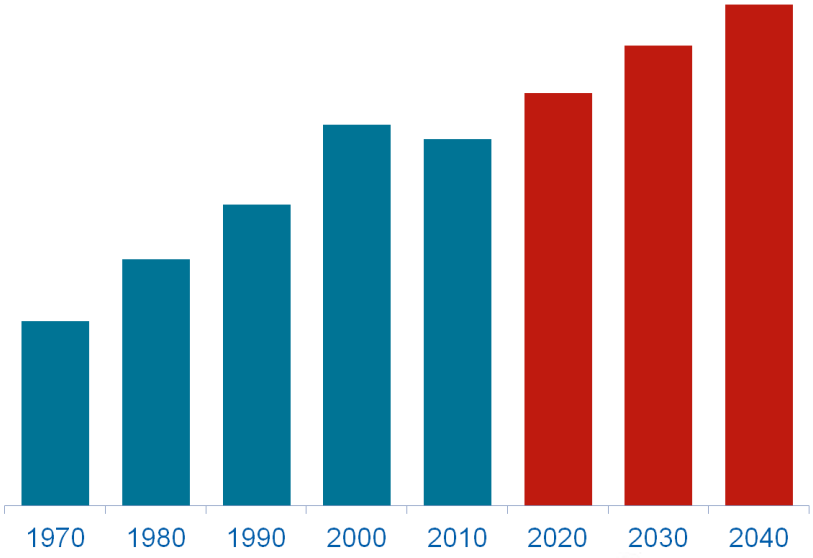


# Regional forecast: Continued growth and prosperity

**Population:**
**31 percent growth**




**Employment:**
**37 percent growth**

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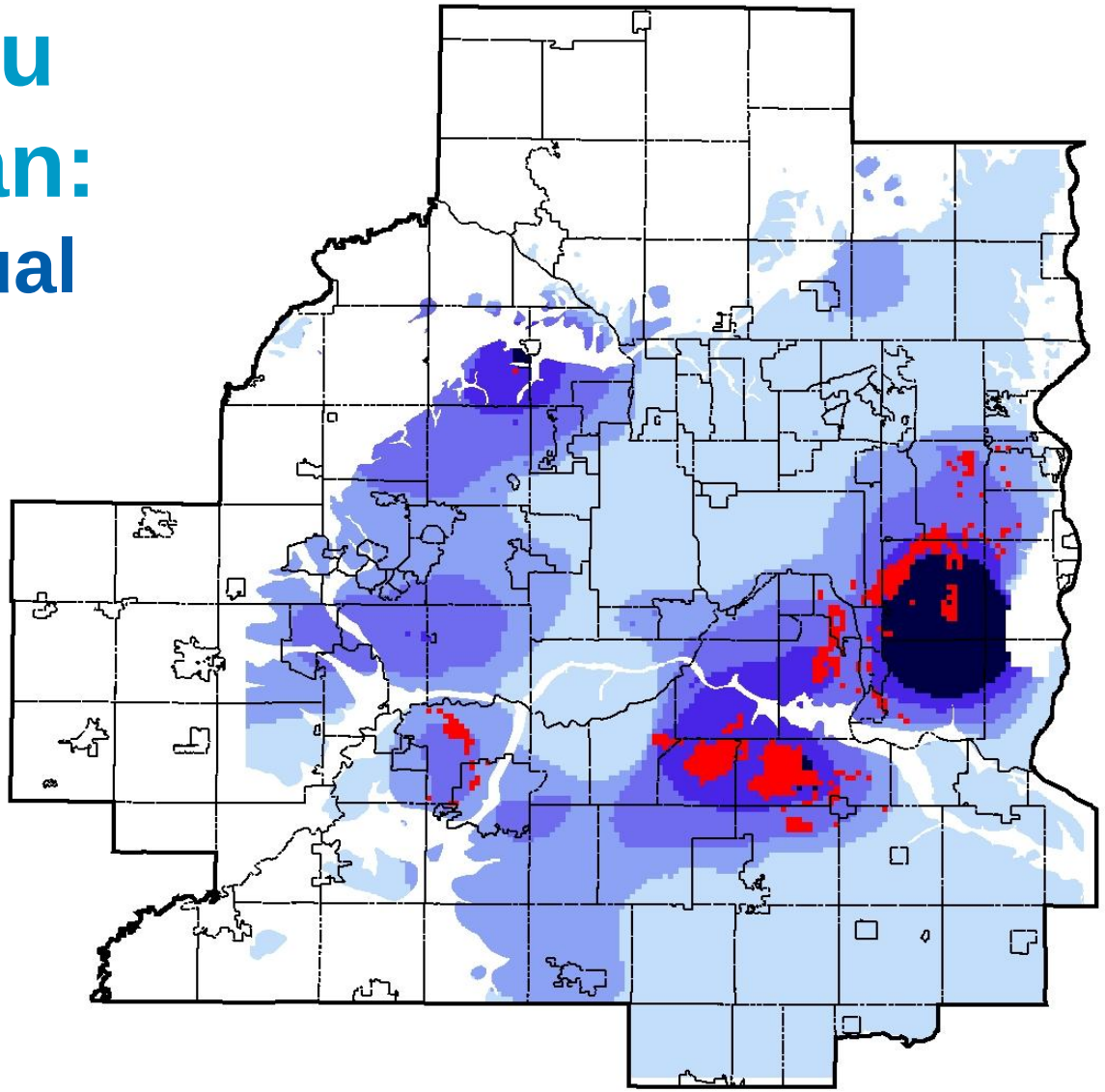
# 2030 Prairie du Chien – Jordan:
## Business as Usual



**Aquifer Drawdown**

- < 5 feet
- 5-10 feet
- 10-20 feet
- 20-30 feet
- 30-40 feet
- 2030 Drawdown > 50% Available Head: Prairie du Chien-Jordan

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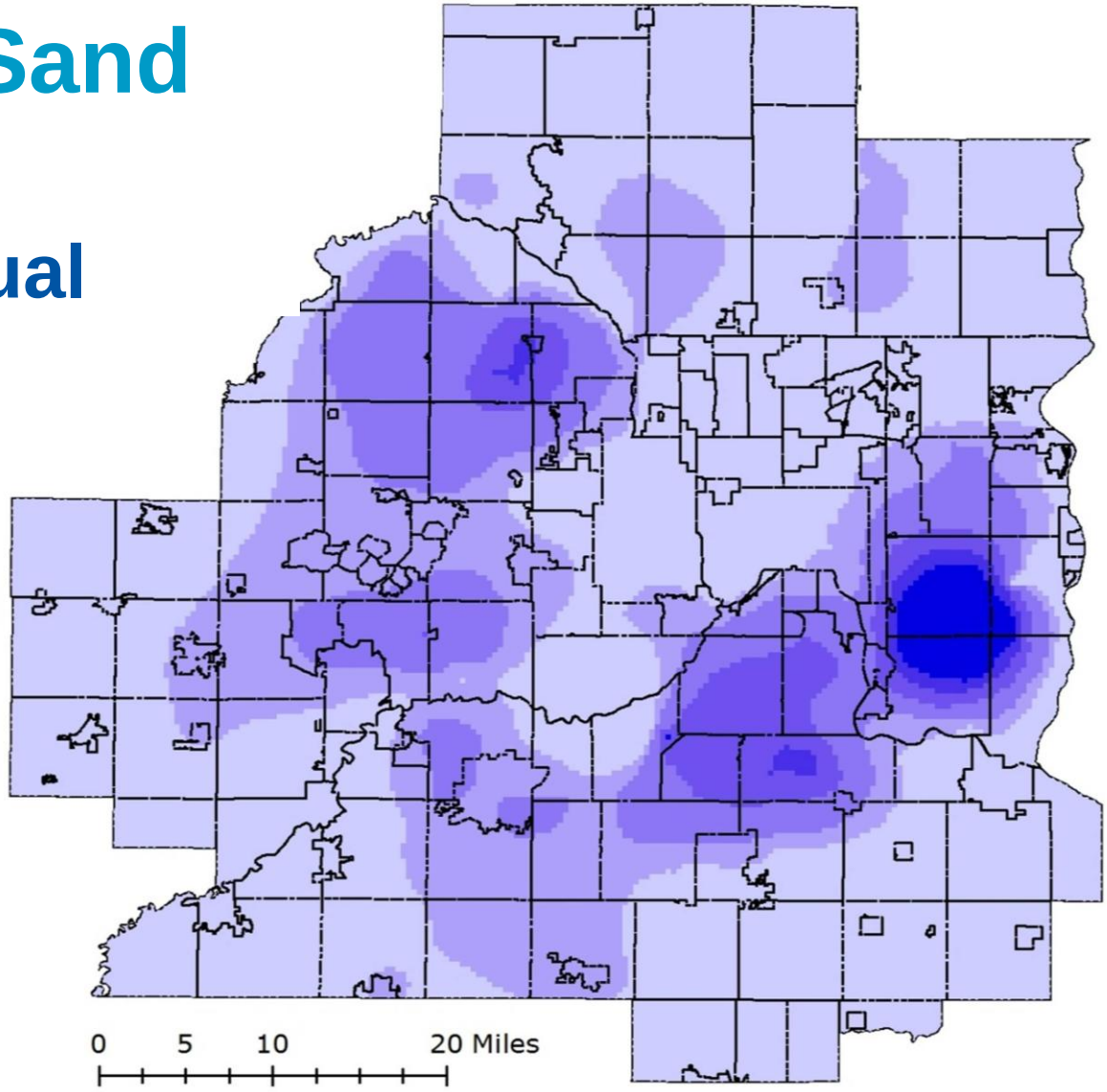
# 2030 Glacial Sand & Gravel:

## Business as Usual




**Aquifer Drawdown**

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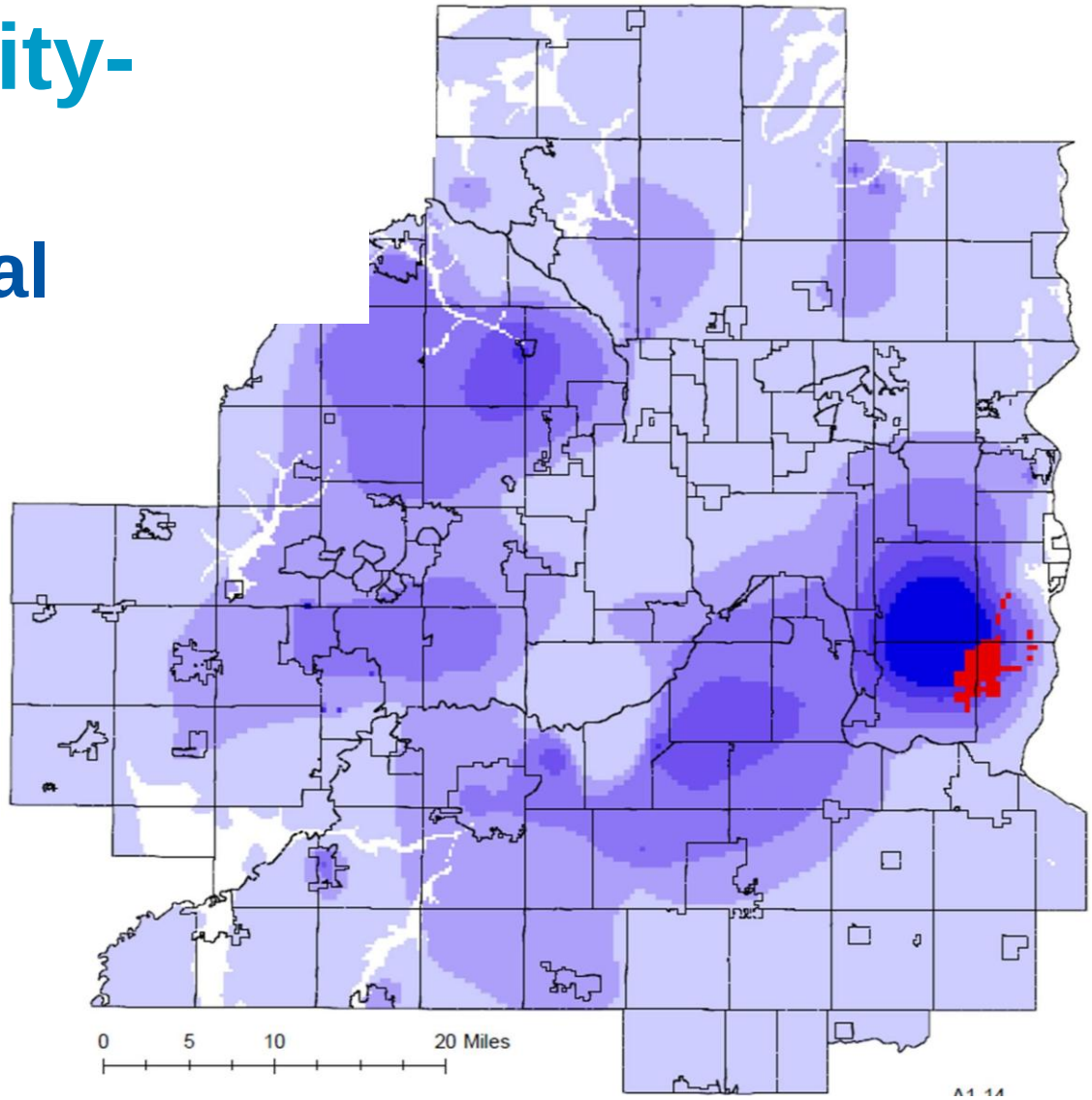
# 2030 Tunnel City-Wonewoc:

## Business as Usual




**Aquifer Drawdown**

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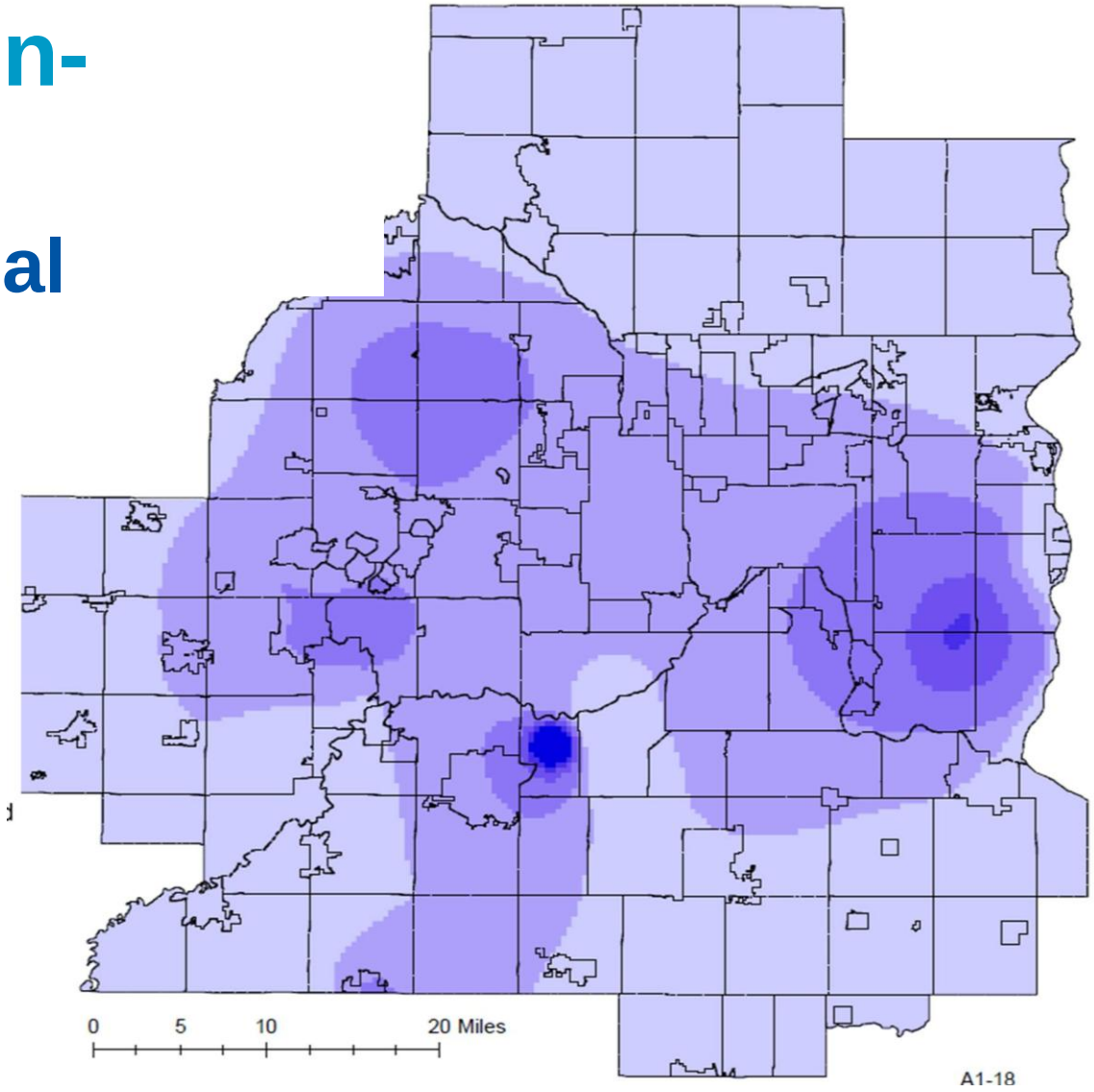
# 2030 Mt. Simon-Hinckley:
## Business as Usual

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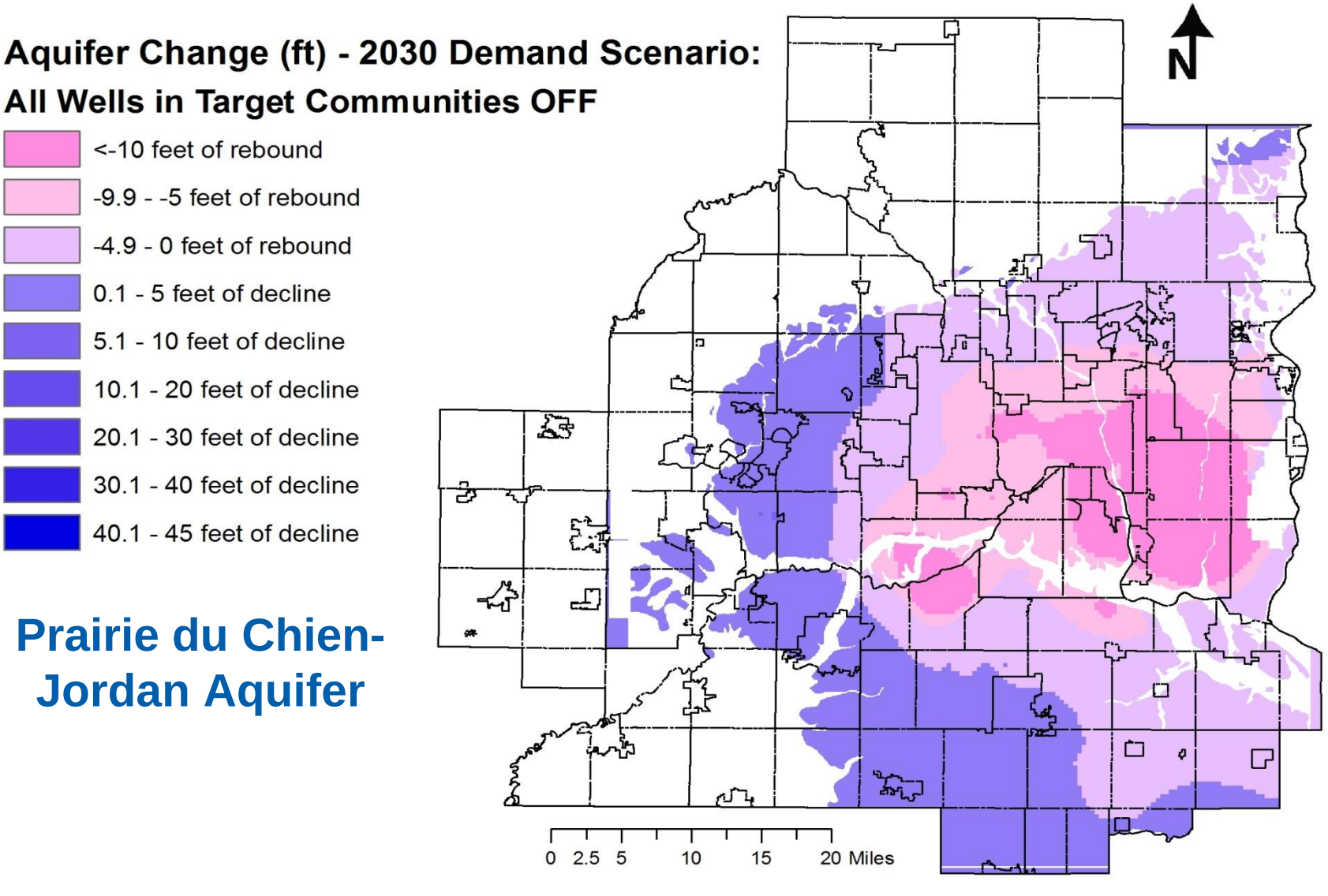
# Water supply can be sustainable




## Prairie du Chien-Jordan Aquifer

# Future direction

## Region needs to

- Restore the balance among water sources
- Maintain and enhance recharge capability
- Conservation
- Collaborate

## Council, in partnership with stakeholders, will support region's effort by

- Developing growth plans that ensure sustainable water supply

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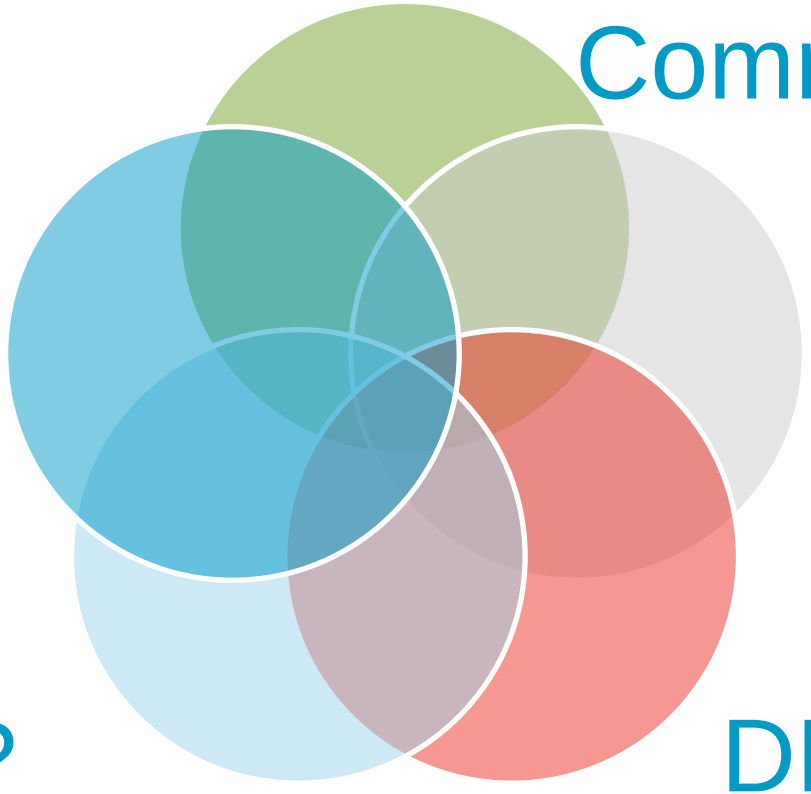
# Solutions are collaborative

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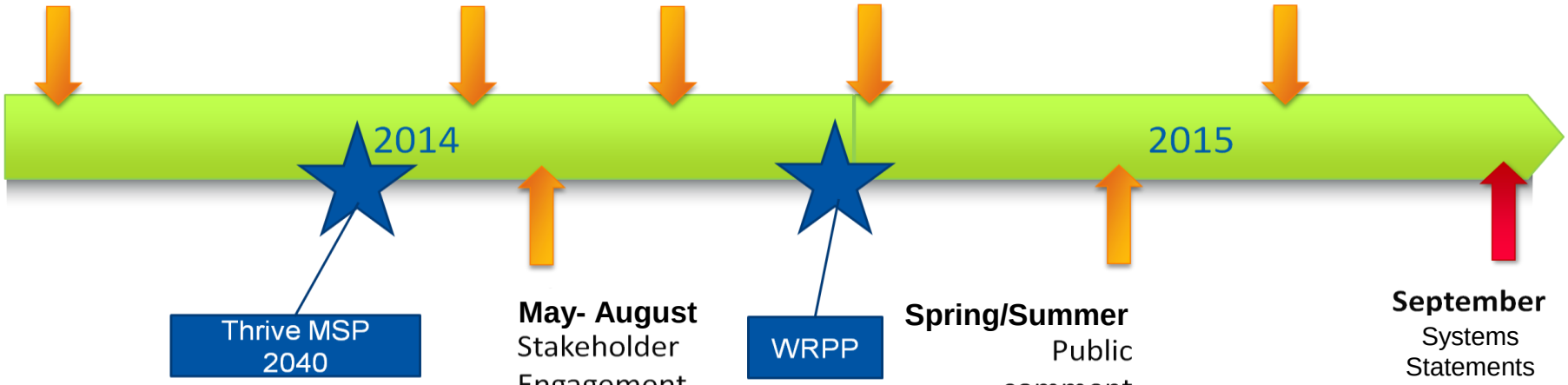
# Updating the Master Plan

**January –May**
Input from Metropolitan Area Water Supply Advisory Committee, Coordination with Thrive MSP 2040 and Policy Plans

**Fall**
Outreach Events

**Winter/Spring**
Metropolitan Area Water Supply Advisory Committee receives draft plan

**Summer**
Approved by Council & DNR Commissioner




**May- August**
Stakeholder Engagement

**Spring/Summer**
Public comment period, 2-3 public meetings

**September**
Systems Statements Released

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